



University of Connecticut
OpenCommons@UConn

Master's Theses

University of Connecticut Graduate School

12-17-2017

Factors Associated with Violence Against Women in Rural India

Jennifer Lardner
jennylardner@yahoo.com

Recommended Citation

Lardner, Jennifer, "Factors Associated with Violence Against Women in Rural India" (2017). *Master's Theses*. 1163.
https://opencommons.uconn.edu/gs_theses/1163

This work is brought to you for free and open access by the University of Connecticut Graduate School at OpenCommons@UConn. It has been accepted for inclusion in Master's Theses by an authorized administrator of OpenCommons@UConn. For more information, please contact opencommons@uconn.edu.

Factors Associated with Violence Against Women in Rural India

Jennifer Lardner

B.A., University of Massachusetts, 1992

B.S., State University of New York, 1998

A Thesis

Submitted in Partial Fulfillment of the
Requirements for the Degree of Master of Public Health

At the
University of Connecticut

2017

APPROVAL PAGE

Masters of Public Health Thesis

Factors Associated with Violence Against Women in Rural India

Presented by

Jennifer Lardner, B.A., B.S.

Major Advisor _____
Judy Lewis

Associate Advisor _____
Stephen L. Schensul

Associate Advisor _____
Jean Schensul

University of Connecticut

2017

Table of Contents

Introduction	1
Background	1
Goals and Objectives.....	15
Methods.....	16
Results.....	21
Discussion.....	34
Conclusions	41
References	45

Introduction

This thesis was part of a larger program addressing Violence Against Women (VAW). It was a combined effort between Mahatma Gandhi Institute of Medical Sciences (MGIMS) and the University of Connecticut. Dr. Surekha Tayade, Professor, Department of Obstetrics and Gynecology at MGIMS was the principal investigator. Prof. Judy Lewis, Departments of Community Medicine and Pediatrics and Ms. Jennifer Lardner, from the MPH Program represented the University of Connecticut (UCONN). There were multiple arms of the project, including community and health professional trainings, small group educational activities to raise awareness, a survey of 500 women in five rural villages, and key informant and group interviews of ninety-five people from the same five rural villages. The topics covered in the interviews included: emotional and physical violence against women, (by strangers, acquaintances and family members), sexual harassment and violence during pregnancy. The MGIMS team designed and conducted the survey and implemented the trainings. The UCONN team designed and conducted the group interviews and analyzed the de-identified survey data. The results will be presented in this thesis.

Background

Violence Against Women

Violence against women (VAW) is known to exist in nearly every culture in the world. The United Nations describes VAW as a problem that “harms families, impoverishes communities and reinforces other forms of inequality and violence throughout societies” (United Nations, 2007). It is not a new problem, but historically it was not well known or studied. It has been considered a private, sensitive topic, and has often not been recognized as a problem.

The United Nations Organization was formed in 1945 and women's rights have always been important to the UN. The UN's charter aims to "to reaffirm faith in fundamental human rights, in the dignity and worth of the human person, in the equal rights of men and women." Despite this aim, violence against women did not start to gain the attention of the UN and the world until the 1980's (World Health Organization, 2017). Violence against women is increasingly discussed and recognized not only as a global public health issue, but also as a human rights violation. At the Millennium Summit in 2000, a set of goals was created to address extreme poverty, and these were called the Millennium Development Goals (MDG's). Three of the eight goals addressed women—achieve universal primary education; promote gender equality and empower women; and improve maternal health.

There are many terms used commonly to describe violence against women. Some of these include intimate partner violence (IPV), gender-based violence (GBV), and domestic violence (DV). The World Health Organization (WHO) defines intimate partner violence as "the behaviour by an intimate partner or ex-partner that causes physical, sexual or psychological harm, including physical aggression, sexual coercion, psychological abuse and controlling behaviours." (World Health Organization, 2016) The European Institute for Gender Equality defines gender-based violence, as violence inflicted by men on women and girls, and highlights the fact that violence against women is an expression of power inequalities between women and men (European Institute for Gender Equality, 2017). Domestic violence is probably the broadest of the terms because it includes children and other family members. The Merriam-Webster dictionary defines domestic violence as "the inflicting of physical injury by one family or household member on another; *also*: a repeated or habitual pattern of such behavior." (Merriam Webster, 2017) The United Nations Declaration on the Elimination of Violence against Women

(1993) defines violence against women as "any act of gender-based violence that results in, or is likely to result in, physical, sexual or psychological harm or suffering to women, including threats of such acts, coercion or arbitrary deprivation of liberty, whether occurring in public or in private life." (UNICEF, 2017) In this paper, the term used will be violence against women, (VAW).

It is important to consider the context in which violence against women occurs around the world. This section will lay the groundwork and consider some of the contextual factors that influence how violence against women is viewed.

Violence against women can occur outside and inside the home. The definitions above remind us that violence can consist of many different things including physical, sexual or psychological harm. The environment outside the home, in which a woman lives her daily life, has great impact on the level of violence she experiences both in and outside the home. The level of harassment and violence that is acceptable in public life sets the stage for the violence that is acceptable in people's homes. Jewkes (2002) discusses the relationship between the level of violence in society, often around political, conflict or workplace situations, and violence at home. Norms of acceptability and tolerance develop when violence is used as a solution to conflict, and that can carry over to VAW at home (Jewkes, 2002).

Gender equality is an important factor to be considered as a contributor to VAW. The Gender Inequality Index (GII) was developed in 2010 by the United Nations Development Program in order to establish global comparisons and to monitor progress (UNDP, 2016). Gender inequality is a barrier to human development, and although women across the world have made great strides in this area, gender inequality exists in all countries. The GII is a measure of the loss of achievement in a country secondary to gender inequality and is calculated considering

three aspects of life: reproductive health (maternal mortality ratio and adolescent birth rates); empowerment (proportion of parliamentary seats held by women and the proportion of females, age 25+ with some secondary education); and economic status (labor market participation rate of both males and females age 15+).

Another index used to understand and monitor overall human development indicators is the Human Development Index (HDI). The HDI was developed by Pakistani economist, Mahbub ul Haq in 1990 and adopted by the UNDP. The HDI emphasizes that people and their capabilities are the ultimate criteria to assess development of a country, not just economic growth. Three measures are considered in the HDI including: life expectancy at birth; education (mean years of school for adults 25+, as well as expected schooling for children entering school); and gross national income per capita (United Nations, 2016).

Cultural factors regarding population growth vary by country and region and should also be considered in gender equity. One example is China's one-child policy, which had a strong influence on limiting population growth. This policy has recently been rescinded but the preference for small families has remained. Other countries (Malaysia, Kuwait and Iran) have policies to promote population growth. In Kuwait, the policy is more about addressing immigration and increasing the percentage of Kuwaitis in the population (al-Ramadhan, 1992). This policy does not seem to have made a difference as the World Policy Review notes that in 2017, Kuwait's population consists of 70% expatriates (World Policy Review, 2017). In Iran, there are concerns that the family planning campaign has been too successful and has overshot its' goal, causing a concerning low fertility rate of 1.92, which is less than the replacement fertility level (Aloosh & Aloosh, 2014). Malaysia has a pro-natalist policy and projects an increase in population over the next 25 years. However they are still experiencing a decrease in

growth rate. This decline in fertility rates is due to higher levels of women's education, an improved education system, women's employment and other factors, the Malaysian total fertility rate has been on the decline. To counteract these changes, Malaysia has implemented incentives encouraging people to have children. These include increased maternity and paternity leave, childcare allowances, and tax rebates (United Nations, 2017). In India, a two-child norm exists. India has chosen various routes to encourage families to have only two children. These include accessibility of contraceptives (especially sterilization and abortion) as well as public campaigns and health worker encouragement of permanent methods once a family has 2 children. Since 1992, several states (originally 11, and for the past decade 7) have prevented people from holding public office if they have more than two children. It was thought that those in public office should be role models for the general population (International Growth Center, 2015).

Sex ratios and sex selection are also related to population control and ultimately violence against women. The WHO defines sex ratio as the number of males per one hundred females. Some countries (including India) report sex ratio as the number of females per thousand males (WHO 2017). It's also important to note that numbers can vary slightly as sex ratio can be reported as a child sex ratio, which measures the ratio of 0-6 year olds. The biologic or natural sex ratio at birth is 105 (males per one hundred females). This can be attributed to the fact that males are more likely to die early, both due to natural causes and other causes such as accidents, injuries, war and other violence. In India, the national sex ratio is 940 females per thousand males. But there is considerable variation between states, with those of the north having greater imbalance. Maharashtra's ratio is 931/1000 (ranking poorly at 22nd out of 29 states) (India Population Census, 2015).

Both India and China represent cultures with a preference for boy children over girls. This preference is related to the family duties of the oldest son, and because girls leave their natal home when they marry. In India, a documented skewed sex ratio has existed since the first census in 1871 (Madan, 2014). Female infanticide has been an issue in India for several hundred years. In the 1970's, prenatal technology was developed which enabled prenatal diagnosis. Prenatal diagnosis, which can be used to detect congenital problems, came into use at approximately the same time as abortion became legal in India (1971). This technology, which began as amniocentesis and chorionic villous sampling and later ultrasound and preconception techniques, offered diagnostic information for families with genetic diseases to make decisions. This technology however is often misused, allowing couples to learn the sex of a fetus and subsequently decisions to abort if the fetus is female. When it was first made available, obstetricians promoted the technology, along with abortion as a solution to female infanticide and a way to promote happy marriages. This led the Indian government to develop strict laws to prevent sex selective abortions, which will be discussed further below.

These varying cultural contexts are important as we consider violence against women around the world. In 2013, the WHO, in collaboration with the London School of Hygiene and Tropical Medicine and the South African Medical Research Council reviewed the scientific literature on violence against women across the globe. The two types of violence reviewed were: violence by an intimate partner and sexual violence by a stranger. This review contributed to the growing recognition that violence against women by an intimate partner is most often a pattern of behavior, and not an isolated incident. With approximately 30% of women affected globally, violence against women including intimate partner violence is gaining recognition as a global public health problem (World Health Organization, 2013). The WHO review thoroughly

examined the literature for evidence of the impact of VAW on women's health. Most research has been conducted in high-income countries, but this review included some studies from low and middle-income countries (LMIC). Although many effects may be related, the WHO review focused on those that had longitudinal evidence. The review included studies in which violence clearly preceded the health risk and there was some reasonable pathway of causality. The findings highlighted six health impacts of violence by an intimate partner: death and injury, depression, alcohol use problems, sexually transmitted infections, unwanted pregnancy and abortion, and low birth-weight babies (World Health Organization, 2013).

The 2013 WHO report found that 38% of all women murdered were killed at the hands of an intimate partner, and 42% of women who have been victims of physical and sexual violence by intimate partners had sustained long term injuries. Victims of VAW are twice as likely to experience depression and also twice as likely to have alcohol problems. Women who have experienced violence are 1.5 times more likely to contract an STI, and in Africa, are 1.5 times more likely to contract HIV. Women exposed to both sexual and non-sexual violence are twice as likely to have an elective abortion. Women experiencing violence have a 16% higher chance of having a low birth weight baby. Based on the WHO's report, and other research, actions are being taken to increase awareness, increase violence prevention, and to improve training for health care workers. Health care workers have a unique opportunity to lessen the impact of the violence, both in the short and long term, however they need training on how to do this effectively (World Health Organization, 2013).

The 2013 report by the WHO might lead one to think that the effort to limit violence against women is new; however, there have been previous efforts. One example in the United States is a federal law called The Violence Against Women Act (VAWA), passed in 1994. The

act was the culmination of an effort led by women who had experienced VAW, the courts and attorneys that supported them, as well as law enforcement (Modi & Palmer, 2014). The overarching goal of the legislation was to change attitudes towards domestic violence, including violence against men and women. New programs were created, as well as a new department within the Department of Justice, called the Office on Violence Against Women (OVW). These programs were grant funded to foster awareness, improve services for victims and change the criminal justice system's response to these crimes (Sacco, 2015). The law has effected some improvements and positive change. The rate of violence against women in the United States decreased 53% between 1993 and 2008, and murder of females by intimate partners decreased by 26% (Modi and Palmer, 2014).

Even though these programs have been effective, maintaining them has not been easy. The culture and political climate in the United States is dynamic and the VAWA needs to be reauthorized by Congress every five years. The legislation was reauthorized in 2000 and 2005. It expired in 2011, although programs continued to receive funding in 2012 and 2013. In 2013, Congress reauthorized VAWA through the Violence Against Women Reauthorization Act of 2013. This reauthorization provided funding for programs through 2018, and amended some statutes including: the DNA Analysis Backlog Elimination Act of 2000, the VAWA 2013 and the Trafficking Victims Protection Act of 2000. Each reauthorization has been accompanied by political controversy. Prior to the 2013 reauthorization, some groups felt that their needs hadn't been adequately met, including Native Americans, same sex couples, immigrants and victims of human trafficking. These groups were specifically addressed in the 2013 VAWA Act. Future data will show whether these changes have made a difference (Modi and Palmer, 2014). It is important for health care providers to keep up to date on the VAWA, as well as knowing about

local resources to which they can refer patients. Health care providers have a unique relationship and opportunity to interact with women to provide early identification, guidance, referrals and support.

Violence Against Women in India

Dhillon & Bakaya (2014) report that in recent years there has been more media reporting on violence outside the home in India. The levels of public harassment, sometimes known as “eve-teasing” and number violent crimes against women, such as rape have increased. This may be due to increased awareness and reporting, especially since the highly publicized brutal gang rape and death of a medical student in Delhi in 2012. There is evidence that street harassment, rape and other forms of violence have been a problem for decades. Street harassment, “eve-teasing” has not been treated seriously in the past and in Indian films it is the most common type of sexual violence depicted. (Dhillon & Bakaya, 2014). There is much debate and speculation regarding the cause of this increase, including increasing sex ratio balance, too few police, few female police, acceptance of violence, low status of women and minimal convictions of these crimes (Washington Post, 2012).

Violence against women inside the home is a major issue. This requires an understanding of the family structure in India. Arranged marriage remains the norm in India. Marriage is considered a relationship between two families, not just two people. Many Indians see this type of marriage as more stable and desirable because it assures shared religion, socio-economic status, and caste. In their book, *Violence and Crime in the Family: Patterns, Causes and Consequences*, Krishan and Subramaniam (2015) describe Indian families as patrilineal. Authority within the family structure is based on relations between adult males, not between

husbands and wives. If a woman has any power within the family, it is based on seniority and being the mother of a son (Krishan and Subramaniam, 2015).

The majority (70%) of families in India are joint families (Quartz India, 2014). The definition of a joint family is an extended family living together in one house, sharing one kitchen. When a woman marries, she leaves her birth family and goes to live with her husband's family. A joint family usually includes the husband's parents, their sons, daughter-in-laws, and grandchildren. In the book, *Indian Society, Institutions and Change*, I.P. Desai, defines joint family as "a household that has greater generation depth (3 or more generations) than a nuclear family, and the members are related to one another by property, income and mutual rights and obligations" (Sharma, 2004).

Violence against women becomes an even more difficult issue to tackle in countries with a high Gender Inequality Index (GII). India's GII is 0.53, and the HDI ranking is 131 (UN 2016). To compare, the World GII is 0.449, the United States' GII is 0.203, and United States' HDI rank is 11 (UN 2016). Within the context of this gender inequality, leaders in India recognized the need for legislation regarding violence against women. In 2006, after years of fighting and lobbying by those involved in the women's movement, the Indian Parliament enacted The Protection of Women Against Violence Act (Nyaaya, 2017). This act was meant to protect women from physical violence and other abuse, including restricting activities or access to family finances. It is difficult to say how effective the law has been. There are some review studies, including the one discussed below, and some smaller studies in the literature, however the large countrywide surveys are conducted infrequently (every 5-10 years) and then the data must be analyzed. The data from the 2015-2016 Demographic and Health Survey in India is not

yet available. The most recent available data is from 2005 and 2006, which was prior to the Protection of Women Against Violence Act.

In 2009, Kishor and Gupta released a report on Gender Equality and Women's Empowerment in India. This work was a partnership between the International Institute for Population Sciences, in Mumbai, and the Ministry of Health and Family Welfare, a part of the Government of India. This report uses data gathered in the National Family Health Survey (NFHS-3) in India, 2005-2006 and examines several important points related to some root causes of violence against women. Kishor and Gupta's 2009 report considered this goal as it related to India. They note that gender inequality is pervasive in India, and there is a greater value placed on the health and survival of males than females. This relates to the topic of sex selection. The 2001 census in India revealed a drop in the child sex ratio of girls to boys. In 1991, there were 945 females to every 1000 male children, age group 0-6 years old. In 2001, this fell to 927 females to every 1000 male children. There are three possible explanations: a decreased sex ratio at birth, secondary to technology and prenatal sex determination/abortion; an increased mortality of girls when compared to boys; and, a systematic undercount of girls. All three of these explanations illustrate the challenges of gender inequality. The relationship between sex selection and domestic violence can be analyzed in many ways (including birth order and sex, wealth, level of education), and significant pressure is placed on women to give birth to boys (Kishor and Gupta, 2009).

In 1975, medical researchers proposed that the sex ratio of India would be affected by the use of prenatal diagnostic technologies and abortion for sex selection. In 1981 and again in 1991, the census revealed the sex imbalance and in 1994, the Prenatal Diagnostic Techniques Act was passed banning prenatal diagnostics for use in sex selection. The law was amended in 2003 to

include the use of preconception techniques in sex selection. These laws have not proven to be especially effective as abortion for sex selection still occurs regularly (Maden & Bruening, 2014). Although a small known percentage (2-4%) of pregnancies end in selective feticide, this is a very large number, considering the population of India. Maden and Bruening (2014) note that the legal restrictions on prenatal testing may be causing a resurgence of female infanticide. This is very difficult to track as it is done secretly. Maden and Bruening (2014), reference R. Banerji's 2008 book, *Sex and Power Defining History, Shaping Societies* in which it is noted that midwives in Bihar interviewed in 1995, admitted to killing up to 50% of the females that they delivered. Maden and Bruening (2014) also report that the 2011 sex ratio with more males than females means that in 10-15 years, there will more than seven million Indian men without marriage partners. There is emerging data on the relationship between lack of partners and increased violence against women, including rape, kidnapping and trafficking of women and girls (Maden & Bruening, 2014).

In 2010, Siminster and Mehta reviewed several years of household surveys in India to try to examine the long-term trends in VAW. In addition to reported crime data, three surveys used were the Work Attitudes and Spending, (1999-2007), the World Values Survey (1990, 1995, 2001, and 2006), and the Demographic and Health Surveys (1992-1993, 1998-2000, and 2005-2007). Using DHS data, Siminster and Mehta (2010), found that attitudes in India regarding VAW and divorce had changed from 1992 to 2007. In 1992, 33% of men and 35% of women thought a person should not stay married to a violent spouse and in 2007 these numbers rose to 78% of men and 75% of women. The researchers also found other examples of changing attitudes. Men were performing more household chores in 2007, than 1992. Sole male control of household decisions dropped from 54% to 34% over those years. This suggests that attitudes

about both VAW and marriage are changing. One last finding to note, change is slow. The WAS surveys reviewed from 1997 to 2007, revealed that few men (13% to 17%) and women (9% to 18%) disagreed the statement that a wife should obey her husband. While there were increases from 1997 to 2007, a large majority of both men and women believed a woman should always obey her husband

Even with slowly changing attitudes, Siminster and Mehta (2010) found that there was an increase from 9% to 16% in the reported violence experienced by wives from their husbands, between the DHS in 1999 and 2006. The researchers mentioned a limitation of both surveys and crime statistics is that VAW tends to be under-reported, which makes interpretation difficult. The researchers proposed a possible explanation for the increase in violence. They suggested that as attitudes changed and women gained more power and status, men were using violence as a last resort to control their wives' behavior. Alternatively, with increased awareness, women may have been more likely to report VAW (Simister & Mehta, 2010).

Violence Against Women in Pregnancy

Violence against women during pregnancy has been studied in many countries with conflicting results about whether pregnancy protects women from violence against women or if violence increases during this time. A review of the literature documented that there is no standard method or definition to study violence against women in pregnancy. Gazmararian and Lazorick (1996) reported in a review article in 1996 that an estimated 1-20% of pregnancies involved violence against women in the United States. The researchers searched the MEDLINE, POPLINE, Psychological Abstracts and Sociological Abstracts databases from 1963-1995, from the United States for all articles pertaining to violence during pregnancy and thirteen studies were chosen. This review presented some challenges, including a lack of consensus on how to

screen and estimate prevalence. The majority of the thirteen studies reported a violence prevalence of 3.9-8.3% during pregnancy. Based on the range in the studies, this meant that over a study period of twenty-two years, between 156,000-332,000 women experienced violence during pregnancy. This was recognized as a serious public health problem. These numbers also revealed that violence in pregnancy might be more common than several pregnancy complications, which are regularly screened for, including preeclampsia, gestational diabetes and placenta previa.

Research in Brazil in 2002 found that of 526 of women studied, who were giving birth at a “public maternity”, 18% of women reported some type of physical violence and 62% reported psychological aggression during their pregnancy. In Rio de Janeiro, approximately 70% of the population of six million uses the public health system, making this a fairly representative study. This study differed from others as it assessed violence by both partners, (although the rates above include only violence against the pregnant woman, in order to compare to the other referenced studies) (Moraes & Reichenheim, M. 2002).

A study by Sarkar (2008) extracted data using a MEDLINE search from literature (including original articles, reviews, surveys, population-based studies, clinical trials and investigations) between 2002-2008. Sakar summarized the findings of several parameters related to VAW (which in this study was called interpersonal violence). One of the parameters was effect on pregnancy outcome. Four geographical areas were considered, in four different studies reviewed including Brazil, Seattle, Nicaragua and Houston. Low birth weight infants were a consistent finding, and some of the other findings included pre-term births and neonatal death (Sakar, 2008). A study in Kampala, Uganda of 612 women from 2004-2005, also found VAW to be a risk factor for low birth weight deliveries and antepartum hospitalizations (Kaye, Mirembe,

Bantebya, Johansson and Ekstrom, 2006). A Swedish group, led by Asling-Monemi examined a demographic database in Nicaragua and identified all cases of live birth from 1993-1996. The researchers then interviewed 313 women to examine for risk associated with VAW (physical and sexual) and found that there was risk associated with under five mortality in women that had experienced violence either before or during pregnancy (Asling-Monemi, Pena, Ellsberg & Persson 2003).

Violence Against Women During Pregnancy in India

India is a large and extremely diverse country, which makes measuring and understanding VAW challenging, especially during pregnancy. Martin & Tsul (1999) studied five geographic districts in Uttar Pradesh and found that 5.4-13.0% of men reported harming their wives during pregnancy. Peedicayil and Sadowski, (2004) found similar results, although with a wider range, 0.9%-20% of women experiencing violence during pregnancy and 40-60% of women who had previously been victims of violence reported that violence continued during pregnancy. Silwal found that in four districts in Nepal, 19.8% of women experienced violence during pregnancy (Silwal, 2012).

Goals and Objectives

The goal of this research was to study the prevalence of violence against women and the influences (individual and community) that affect violence against women during marriage and pregnancy in rural villages in Wardha District, Maharashtra, India. Specific objectives included determining if husband's drinking and gambling habits, gender roles, or a family history of violence influenced the prevalence of violence against women.

Methods

Setting

Sewagram, Maharashtra, India is a small town, with a population of approximately 6700, according to the 2011 Indian census. It is 8 km from the city of Wardha, which has a population of 105,000, and 75 km from Nagpur, a city with a population of 2,500,000. Prior to 1934, Sewagram was mostly farmland with a very small population. After his padayatra (foot march) in 1930, and a two-year imprisonment, Mahatma Gandhi decided to settle in a village, which he named Sewagram. Sewagram means village of service. He and his wife, Kasturba lived in Sewagram until his death in 1948. As one walks around Sewagram today, Gandhi's legacy is still evident. The Sewagram Ashram is now a museum and also hosts programs and scholars. Gandhi's legacy played a role in the setting for this study. Dr. Sushila Nayar became Gandhi's personal physician while he lived in Sewagram and she also started a small dispensary on the grounds of the ashram. There was no health care available in Sewagram, and in 1945, Dr. Nayar opened a 15 bed maternity hospital. This was the beginning of the current Kasturba Hospital. After Gandhi's death, Dr. Nayar earned an MPH from Johns Hopkins. She returned to Sewagram and at the suggestion of Health Minister, Shri Lal Bahadur Shastri, started India's first rural medical college. This is the Mahatma Gandhi Institute of Medical Sciences, (MGIMS). To this day, the medical college recruits students who serve for two years in a rural post after graduation. Dr. Nayar subscribed to Gandhi's lifestyle and insisted that students at MGIMS did as well. From 1972 until 2017, selling, consuming and trading alcohol was illegal in Wardha. There are still some restrictions on where alcohol can be sold, however it is now legal to consume (Times of India, 2017). MGIMS continues to adhere to Gandhi's lifestyle rules, and there is no alcohol or meat allowed on the campus. There is still a focus on community health, especially for women.

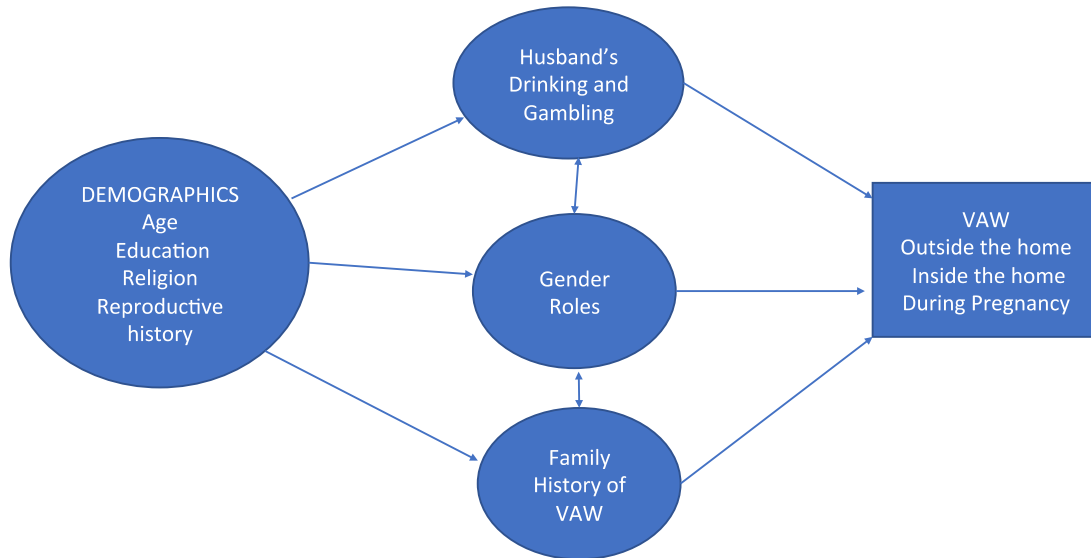
With this history, it is not surprising that the Department of Obstetrics and Gynecology continues to conduct research to improve women's lives (MGIMS, 2017).

The five rural villages of the study had a total population of approximately 10-15,000. The villages were accessed from Sewagram via main roads. The main roads were paved but closer to the villages, the roads became dirt. Some of the villages had small shops, and there was a mixture of housing types. Houses in the five villages were built from various materials including mud, thatch, concrete, brick and some metal for roofs. Most of the villagers were farmers.

Research Model

This thesis examined the prevalence of several types of violence against women, as well as their relationship to women and family demographic characteristics (age, education religion, and reproductive history) and intervening variables including husband's drinking and gambling habits, gender roles and family history of VAW.

Figure 1. Research Model Diagram



Study Implementation and Data Collection

The project received IRB approval at UCONN School of Medicine, as well as from the institutional ethical committee at MGIMS. Dr. Surekha Tayade and her research team from MGIMS recruited and trained five Auxiliary Midwives (ANM's) and five Accredited Social Health Activists (ASHA's) who served the five villages in which the interviews took place. The Women and Health: Together for the Future education module on VAW was used as part of interactive workshops for this training. Auxiliary midwives are female health workers, with a brief training in midwifery. They provide antenatal and delivery care as well as family planning and other preventive care in the village health centers. The ASHA's are women who reside in the village and act as assistants to the ANM's. The two groups provide an important link between the communities and the health clinics at the village level. They also have a relationship with the

physicians at the hospitals, and serve as liaisons when a woman is having problems, or needs a higher level of care.

The data collection included two components, quantitative and qualitative. Five hundred women, eighteen years of age and older were recruited from the five rural villages in Wardha described above. The interviews were conducted by the trained ANM's and ASHA's over a three-month period of time from January to March of 2016. The survey included questions on violence and harassment against women, inside and outside the home, and violence during pregnancy. Members of the team at MGIMS entered the data into an excel database from the paper questionnaires. The de-identified data was then analyzed in SPSS by the research team at the UCONN School of Medicine. The second data collection component consisted of group and key informant interviews with ninety-five people from these same five villages. Some of the participants may have completed the individual questionnaire.

The Indian research team recruited the ninety-five participants for the group interviews from the same five villages that took part in the study questionnaire. The interviews took place over a period of eight days. The author led the group interviews, with an interpreter from the Indian team. During the introduction to the meetings, it was explained that the questions were to learn about the experiences of the community, not the individuals. There were several groups, some with 4-8 people and others larger, with ten to twenty people that participated in the group interviews. Similar to the individual survey respondents, all participants in the group interviews were at least 18 years old. The ninety-five people included eighty-nine women (both of reproductive age and older) and four men. Notes were taken during the interviews by the author, and were later transcribed. The interviews were not voice recorded, so an exact transcript was not created. The majority of the groups were all women. The same questions were administered each

time, although the discussion that followed varied by group. The discussion was general and did not include individual's experiences. The topics introduced to guide the discussion, included: how common violence against women is in the community, what type of violence is common, whether the community see violent behavior as a problem, who makes household decisions, whether women work outside the home and if this is a good thing for the family, is pregnancy a stressful or happy time, and are there options for women experiencing VAW. The all-female groups had an excited, energetic feel. The women were happy to be asked about their lives and were very willing to share their thoughts about violence in the community. In the two groups that included a few men, the women were more reserved and the men spoke more than the women. The men shyly admitted that some common behaviors are not right, but all of the men and women agreed that change would be difficult.

During the same months as the interviews, the Indian team hosted activities in the participating villages to raise awareness of the issue of violence against women. These included speeches by specialists and legal experts, small group activities, pathnatya (roadside plays) by nursing students, posters, rangoli (decorative art created on the floor using colored sand, rice or flower petals), and pamphlet distribution during local women's meetings and during an International Women's Day celebrations.

The data was reviewed and prepared for analysis. As the questionnaires were administered and collected by multiple members of the MGIMS team, there were some inconsistencies in categorizing and coding. A thorough review of the frequencies for each variable revealed that some needed recoding into more usable categories, and this was done. To compare certain data, some variables were grouped. One example is that women's ages were originally collected as actual age while the men's ages were collected in categories. So women's ages were coded into similar

categories for some of the analysis. New variables were created using existing data to further examine relationships between women and their husbands. They included education discordance, age discordance, and writing Hindi discordance. A variable was created to consider the density of people in the family home.

Results

Women's Demographics

Five hundred women completed an interview and were included in the analysis. The average age of the women interviewed was 29.2 years (range 19-48).

The education system in India is categorized in several levels. The Primary level lasts eight years, from grades one to eight, ages six to fourteen. The Secondary level is four years, including grades nine through twelve, ages fourteen to eighteen. Secondary is sometimes divided into lower and higher secondary. (Classbase, 2017). Graduate level is similar to college in the United States or University in Europe. Post-graduate would be a medical residency or post doc program/fellowship.

The women's education levels were 15.7% no formal education, 28.6% primary education, 36.3% secondary education, 16.9% high school education, and 2.4% graduate level education. 72.8% of women could read English; 98.2% of women could read Hindi; 63.6% of women could write English; and, 95.4% of women could write Hindi.

Women's occupations were categorized as follows: 58.4% housewives, 34.2% unskilled laborers, 3.4% semi-skilled laborers, and 0.4% professionals. Income from women employed outside the home was not recorded.

India is predominantly Hindu, but has many other religions: 13.4% Muslim, 2.3% Christian, 1.9% Sikhs, 0.8% Buddhist, 0.4% Jain, and 0.6% other (Government of India 2011).

The majority of women interviewed were Hindu (78.2%). Other religions were Buddhist (12.4%), Muslim (3.4%), none (3%), other (2.4%), and Christian (0.6%). Women were asked to describe “how religious you consider yourself on a scale of 1-5”. One was the least religious, and five extremely devout. Four hundred and six (84%) women ranked themselves as a 3, 4 or 5 on the scale. The mean for religiosity was 3.59 (range 1- 5).

The majority of women were married (88.6%), 2.2% were separated, 0.8% divorced, 4.6% widowed. The mean marriage length was 6 years, with a range of 1 to 25 years.

Husbands’ Demographics

Women were the source of information about their husbands. As mentioned above, husband’s age was asked in grouped categories: 1% of husbands were 16-19 years old, 22% were 20-30 years old, 36.2% were 31-40 years old and 34.6% were older than 41.

Husbands’ education was 12.2% no education, 23.2% primary education, 29.8% secondary education, 13.2% high school education, 13.8% graduate school education and 1.6% post-graduate school education. 75.8% of husbands were able to read, 6.6% were not and 17.6% were missing. 88% of husband’s were able to write Hindi, 7.6% were not and 4.4% of this data was missing.

The mean income of the husbands was 7656.20 (range 500-90,000) rupees monthly. This is an average monthly income of \$114 US dollars. 9.6% of husbands had no income, 20.6% were between 1 and 4500 rupees monthly, 29.4% were 4501-5000 rupees and 40.4% of husbands were more than 5001 rupees per month.

Women were asked about some of their husbands’ health behaviors. Fewer than half (43.6%) of women reported that their husbands drank alcohol. Of women reporting that their husbands drank, 30.2% reported that their husband’s drinking was a problem in their relationship. Few (5%) women reported that their husbands gambled. Of those women who reported that their

husband gambled 5.4% said the gambling was a problem.

Family Demographics

The majority (58.4%) of the women interviewed lived in joint families, and 35.8% in nuclear households (with just their husbands and children), 5.8% were missing. The mean number of people (adults and children) in women's families was 4.63 (range 1-14, SD=1.75).

In terms of home ownership, the majority of families (87.6%) owned their homes, and 10.6% rented. There are two basic types of homes in rural Wardha District, Kuchha (mud or thatched walls and tile or thatched roofs) and Pucca (concrete or brick walls and a metal roof), (Joseph, K. 2016). The significance of these home types is related to wealth and resources. The majority of women lived in a Pucca home (47.8%), 19.4% Kuchha home, 3.8% lived in a home that was both Pucca and Kuchha, (29% missing). The majority of families live in four rooms or less. The mean number of rooms was 3.06, with a range of one to eleven.

Another representation of wealth is land ownership beyond the land of a house. 53.2% owned land. Of the 53.2% of women, whose families owned other land, 24.6% owned 1-4 akar (acres) and 28.6% owned five or greater acres. Questions regarding amount of rent and hiring others to help farm had inconsistencies in data collection and were not included in the analysis.

Ownership of mobile phones is both a measure of wealth and autonomy, including women's access to information and friends. 70.2% reported that their family owned 1-2 mobile phones, (with a mean of 1.93 mobile phones per family). Women were asked to distinguish between android and other mobile phones. 36.4% of families owned at least one android phone (31.8% owned two, 0.2 % owned three and 19.2% owned no android phones). The majority of women (57.8%) owned a phone that was solely for their own use.

Women were asked if they received financial or other help from their parents as well as

from their in-laws. 9.8% of women received help from their own families and 42.9% of women received help from their in-laws.

Women's Reproductive History

The mean number of pregnancies women reported was 2.08 (range 0-5). 23.2% of women reported having an abortion, including both spontaneous and induced abortions. Only 7.8% of women reported having had an STI (sexually transmitted infection), 63.8% of women had not, and 28.4% were missing.

In terms of family planning, women were asked if they had used contraceptives and if so, what types. 32% of women had never used contraceptives, 33% had and 35% were missing. Of those that had used contraceptives, 34.6% had used a permanent method (primarily tubal ligation or vasectomy), 4% had used a long acting method (intrauterine device or an injectable contraceptive) and 26% had used a short acting method (condoms or oral contraceptive pills). 34% of women's most recent pregnancies were planned, 38% were not (27.8% missing).

Violence against Women

The second half of the questionnaire addressed VAW and was separated into several sections. These sections included: Fear of Violence, Sexual Harassment, Sexual Violence, Husband's Behavior, Violence at Home, Violence During Pregnancy, and Gender Roles.

VAW Outside the Home

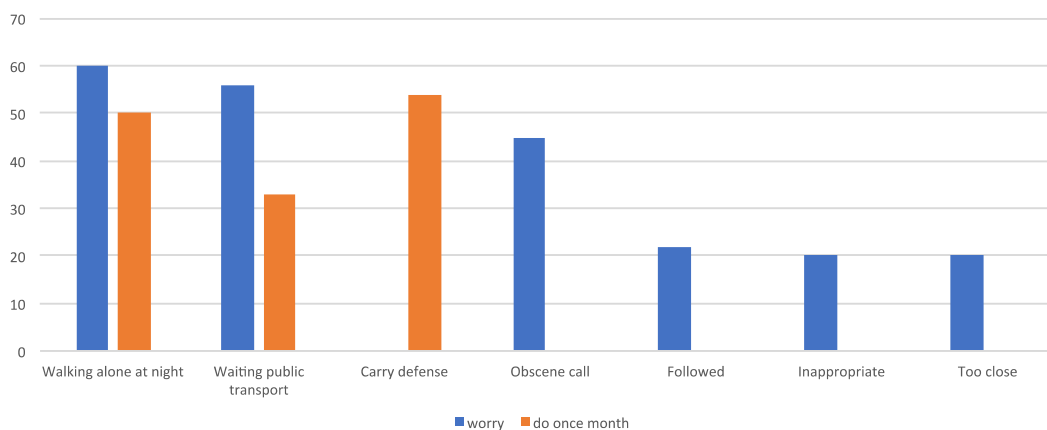
The Fear of Violence section revealed that many women have concerns about violence outside the home. This section questioned women mainly about violence at night in the community walking or using public transportation. Sixty percent of women felt somewhat to very worried about walking alone at night, yet, 50% have to do this at least once per month. Fifty-seven percent of women carry something to defend themselves at least sometimes. The most common item mentioned was

mace or a spray, which 20% of women used sometimes. Similarly, 56% of women worried about their safety while waiting for public transportation, however 33% of women have to do this at least once per month. (Figure 2)

Sexual harassment was a common experience in these women's lives. Sexual harassment includes many types of behavior, ranging from obscene phone calls to sexual assault. Nearly half (45%) of women had received an obscene phone call. Thirteen percent reported that they had received unwanted attention from a male stranger and 22% had been followed by a man in a frightening way. Twenty percent of women had been made to feel uncomfortable by a man making inappropriate comments about her body, sex life, asking for a date and not taking no for an answer, or leaning in and getting too close physically. (Figure 2)

Figure 2. VAW and Activities Outside the Home

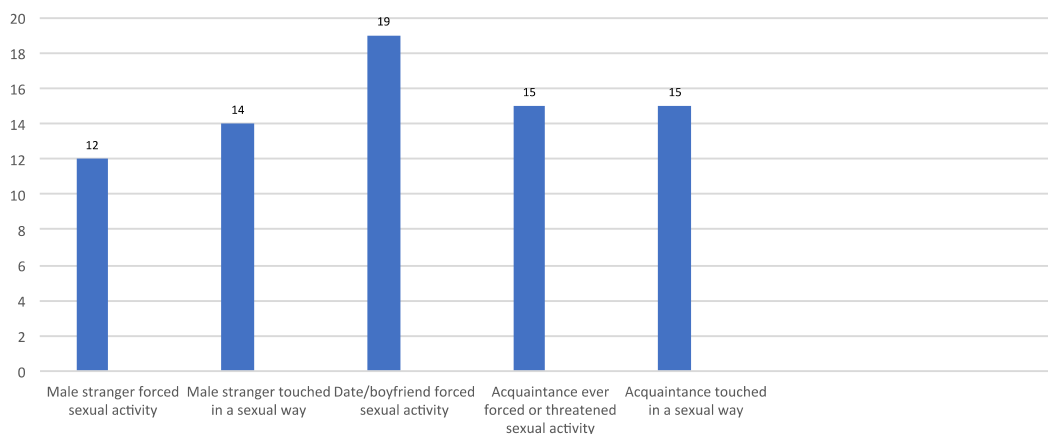
VAW and Activities Outside the Home



The numbers were not as high for sexual violence, but they were still notable. (Figure 3). Twelve to nineteen percent of women reported that they had experienced the following: had been forced or attempted to be forced into sexual activity by being held down or hurt in some way; had been touched in a sexual way by a stranger (touched, grabbed, kissed, fondled); had been forced or attempted to be forced by a boyfriend into sexual activity, had been forced or attempted to be forced by a man you know into sexual activity by holding you down or hurting you in some way, or had been ever touched by a man you know in a sexual way (touched, grabbed, kissed, or fondled).

Figure 3. Sexual Violence by Strangers and Acquaintances

Sexual Violence by Strangers and Acquaintances



All women responding to these questions (8% did not respond) experienced some type of VAW outside the home. For a total of 10 behaviors, the range was 1-10 with a mean of 4.2 (SD-1.7).

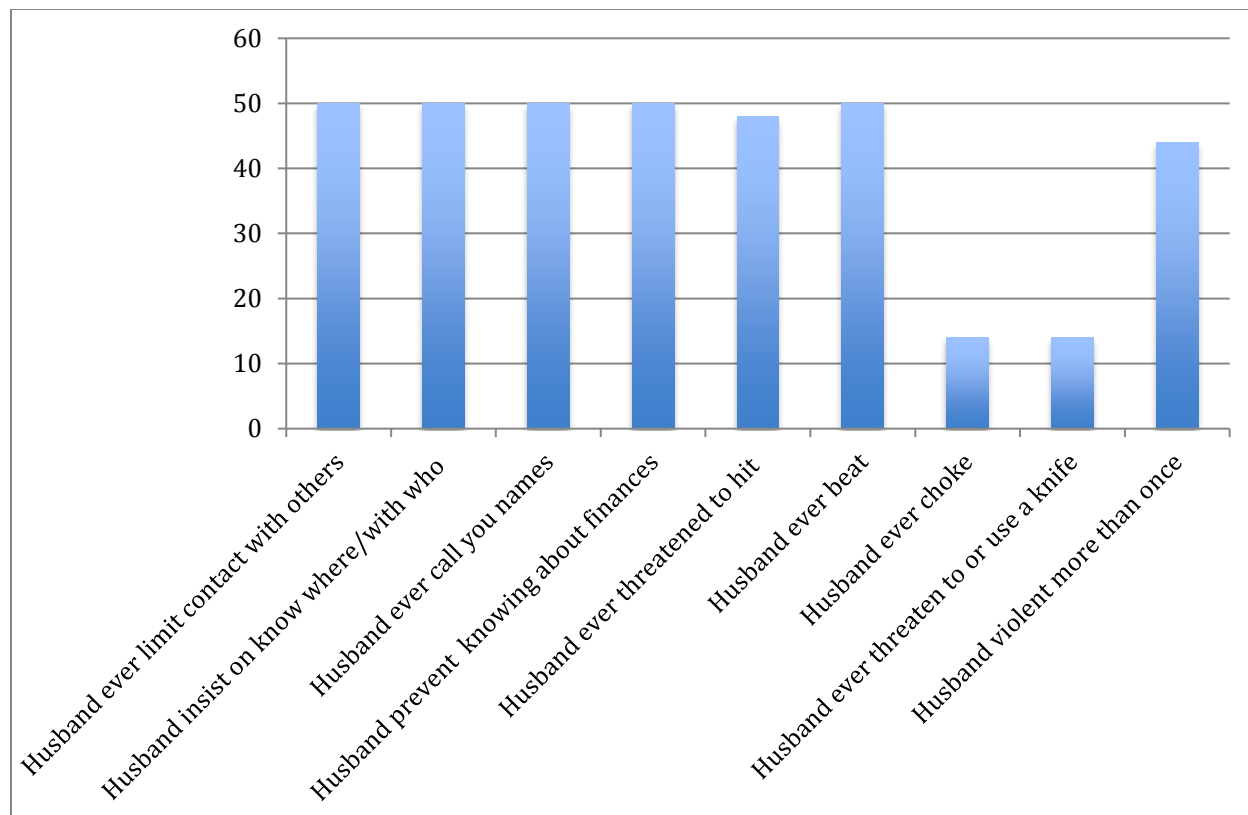
VAW Inside the Home

Women were asked about their safety inside the home. They were asked about both behavioral violence and physical violence by their husbands. Violence by other family members was not included in the study. For each type of behavioral violence inquired about on the questionnaire, 50% of women reported experiencing the behavior from their husbands. Behaviors included: having a jealous husband who doesn't want you to talk to other men, a husband who had tried to limit your contact with family or friends, and insisted on knowing who you are with and where you are at all times, a husband who calls you names to put you down or make you feel bad, and prevents you from knowing about or having access to the family income, even if you ask.

(Figure 4)

In terms of physical violence, fifty percent of women surveyed reported that their husbands had threatened to hit them, had thrown something at them, had pushed, shoved, grabbed or beat them. The numbers decreased to approximately fourteen percent when asked if their husband had ever choked them, threatened to or actually used a knife on them or forced them into sexual activity. Forty-four percent of women reported that their husband's had been violent toward them on more than one occasion. (Figure 4)

Figure 4. VAW By Husband Inside the Home



Almost all women experienced some type of VAW by their husband. 1.2% were missing and 2.8% reported no VAW. Out of 15 possible types of VAW, the range was 0-13. The average was 5.6 (SD=2.7).

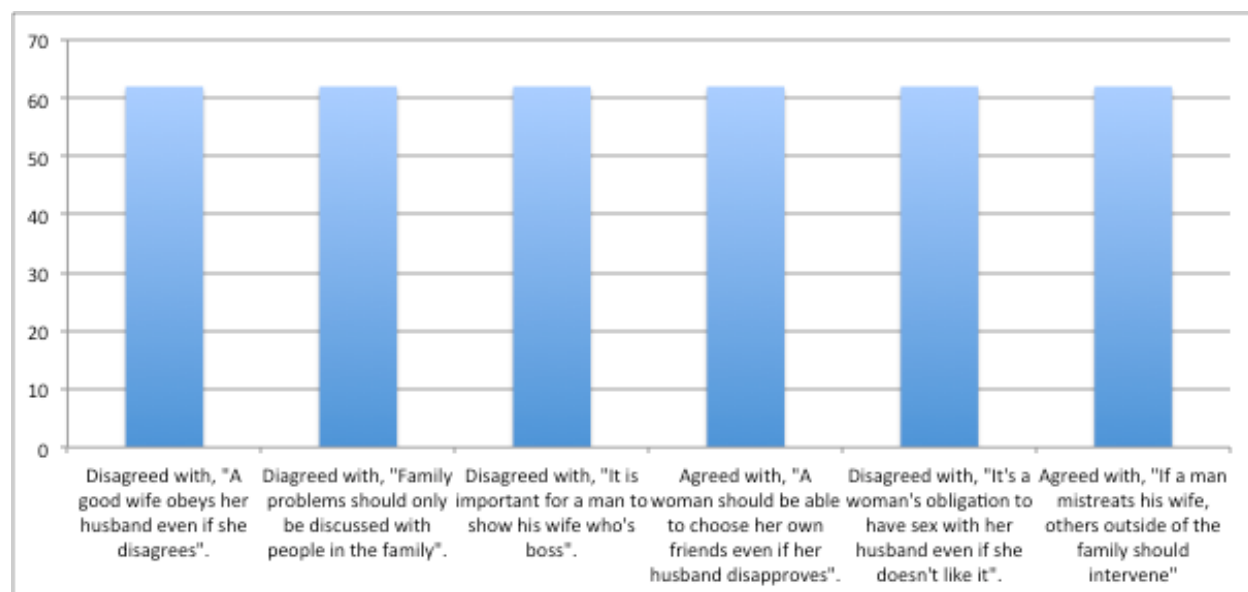
In terms of violence during pregnancy, the numbers were lower. Ten percent of women reported that their husbands had prevented them from attending a doctor's clinic or antenatal care during one of their pregnancies, however eighty-six percent reported that their husbands had done things to help them have a healthy pregnancy. Though behavioral violence did occur when

women were pregnant, it was much lower than when not pregnant. Six percent of women reported that physical and emotional abuse by their husbands had occurred during pregnancy.

Gender Roles

Gender inequality plays an important role in women's lives in many ways, including their experience of violence. The MGIMS team created a section of the survey to learn more about women's perceptions of gender roles in Wardha. There were six questions that asked the women to state if they agreed or disagreed with a statement about gender roles. Some examples of the questions include: "A good wife obeys her husband even if she disagrees," "It is important for a man to show his wife who is the boss," and "A woman should be able to choose her friends even if her husband disagrees." For each question, over 60% of women disagreed with statements that placed husbands in a dominant role. (Figure 5)

Figure 5. Gender Roles



Factors Related to VAW

In addition to documenting the prevalence of violence in the lives of women who live in

these five villages in Wardha, this research examined factors that influenced VAW. These included the demographic characteristics of women and their families and women's reproductive history. Measures of VAW included: Fear of Violence, Sexual Harassment; Sexual Violence by a Stranger, Husband's Behavior, Violence at Home, Violence during Pregnancy, and Gender Roles. This analysis revealed few statistically significant relationships between the socio-demographic and VAW variables. One was the relationship between negative age discordance and husband trying to limit contact with family and friends ($\chi^2=10.161$, $p=0.038$). The second was between age discordance and a history of the father-in-law being violent toward the mother-in-law ($\chi^2=22.496$, $p=0.001$).

In addition to the specific variables, VAW behavior scales for behavior were developed. None of the following were sufficiently reliable. The scales were the Husband Behavior Scale (Cronbach's alpha 0.332), the Violence at Home Scale (Cronbach's alpha 0.567) and the Gender Role Scale (Cronbach's alpha 0.124). With low Cronbach's alphas and no significant relationships these scales were not used. The Husband Behavior and Violence at Home (HBVH) Scale was used in the analysis because it had a Cronbach's alpha of 0.739. This scale included several measures of the husband's behaviors (jealousy of women talking to other men, limiting contact with family and friends, insisting on knowing where his wife is at all times, calling his wife names, and limiting access to the family income) and violence at home (threatening to hit, throwing objects, pushing, grabbing, shoving, other violence, beating, and being violent on more than one occasion).

Relationships between the HBVH Scale and socio-demographics were examined, including marital status, education levels, home, land and phone ownership, as well as family support, husband's drinking and gambling, and history of sexually transmitted diseases. The only significant factors associated with the Husband Behavior and Violence at Home Scale were: the

woman's ability to read Hindi ($F=3.726$, $p=0.054$), history of the father-in-law being violent ($F=16.671$, $p=0.001$) and whether the husband had forced the woman to have sex during pregnancy ($F=8.433$, $p=0.004$).

Qualitative Interviews

The qualitative group interviews examined community norms and perspectives. The ninety-five participants were willing to participate and to discuss a problem that affects everyday life and is not often discussed. When asked if violence against women is common in the community, all interviewed expressed that it is very common, that it is a norm. In fact, some women were confused about why we were asking, as violence is just part of life. The majority answered that violence did occur with strangers, but was much more likely to be perpetrated by a family member, most often the husband. The most common types of abuse reported were hitting, including hitting with something (stick, shoe, etc..) as well as verbal abuse. Several women mentioned that violence and verbal abuse is more common early in marriage, especially when the perpetrator is the mother-in-law. Of note, VAW against women by mothers-in-law and fathers-in-law was not asked about in the questionnaire. The women participating in the group interviews described how over time relationships within a joint family change. Other women join the family by marriage and as the women and family become more comfortable with each other, the violence and abuse subside. Almost all of the participants (who were 96% women) felt that violence against women is a problem. However, they couldn't imagine that it would be possible to change and reported that there are no resources or solutions. Most women reported that if necessary, if the abuse was bad enough, the woman could leave and go back to their natal parent household, but only for a visit. After a few months visiting, everyone agreed, a woman would need to go back to her husband, or "people will talk." They said that divorce is not an option in this rural community.

Women said that violence is hardly ever reported to authorities. The main concern is that it may tarnish the family name. It was also mentioned that nothing changes with reporting, as there are no consequences for the abuser.

Women described how men/husbands have more power. One telling quote by an interviewee was, “Women are like shoes, they should be kept down.” Participants were asked about who makes decisions in the household. It was almost unanimous that in joint families fathers-in-law and husbands make decisions about money, health care and childcare. In some cases, women described physicians requiring written consent from their husband to get birth control. This is not the practice at MGIMS, so these were cases from other geographical areas and hospitals. Also mentioned was the control a mother-in-law has over giving birth. It was often the mother-in-law’s decision whether to give birth in the hospital or home. This control was thought to be secondary to power, but also finances. At times the discussion expanded to explore whether a wife working outside of the home increased the likelihood of her making decisions. In most discussions, participants seemed to think that a woman working outside the home might increase the chance that she would make some decisions, but in reality this wasn’t happening. It was mentioned that if women made any decisions, they were about buying household items or what to cook for dinner, hardly ever about issues of greater consequence. Many women in this community do work outside the home, mostly farming. Women interviewed did think that working outside the home, especially in jobs in offices (other than agriculture) would be positive, and might improve their status. Older family members and a few of the men interviewed did not agree and felt that the best thing for the family was women staying home, doing housework and caring for the children.

One overriding theme in the group interviews was the role of alcohol. Although selling alcohol was not permitted in Wardha, many small moonshine shops had quietly opened. In a few

of the group interviews, women reported that many men spend the entire day drinking and then come home and physically abuse their wives. When alcohol was involved, the violence tended to be worse.

Unanimously, pregnancy was thought to be a good and happy thing, and not seen as a stressful time. There was some discussion that men tend to back off on physical violence during pregnancy, as they are hoping for the baby to be a boy, and they don't want to jeopardize the health of that boy. Women did report that during pregnancy, men who drink alcohol were more likely to hit and physically abuse their wives.

One final topic discussed was violence by strangers, or men other than family members. There was certainly a feeling that walking alone during both day and night is unsafe, and that after girls reach adolescence they are really not safe outside of the house alone. Most families insisted that their adolescent daughters stay inside unless accompanied by a male member of their family. Women interviewed mentioned not always feeling safe at home alone. They were concerned with men (both strangers and neighbors) entering their homes and sexually abusing them. There were some discussions about isolated cases of violence, including sexual violence. Even violent sexual abuse by strangers was not always reported for fear of blaming the victim as well as bringing shame to the family. Most interviewees felt that perpetrators were rarely punished, so reporting an incident was useless. Verbal harassment was noted as ubiquitous when walking through their villages. Personally, while walking near MGIMS, my teenaged daughter and I experienced men who would stare and make comments. The comments and actions were minor and most likely less offensive and overt than local women experience, given the fact that I was a white woman and visitor, both of which were very apparent.

Discussion

This research project accomplished the goal of studying the prevalence of VAW, raising awareness and learning about some of the factors associated with violence in Wardha.

The socio-demographic characteristics investigated in this project confirmed details about the women, their families and their communities. The Indian research team practices in Wardha, is very familiar with the district, and the demographic findings were as expected with a few surprising details. For example, home ownership was greater than expected. 87.6% of families owned their homes, which is quite high for a rural community in which the average income was \$114 US dollars or 7656 rupees per month. India has a large and growing population (1.3 billion), and has many programs to slow growth. The majority of families studied have been influenced by the two-child norm, which seems to be well accepted in Wardha.

The widespread use of alcohol was unexpected. Across India, for religious reasons, many adults do not drink alcohol and in Wardha alcohol sales are illegal in many areas. Women in the survey reported 43.6% of their husbands drank and, of those, 30.2% reported that the drinking was a problem in their relationship. During the qualitative group interviews, the amount of alcohol and problem drinking reported was much higher than the surveys. Several groups of women reported that most or almost all men in their communities' drink and that this was a problem. They could only think of a handful of men in their village that didn't drink. The higher reporting in the group interviews may have been due to the women feeling more comfortable disclosing this information to a stranger, rather than to the ANM's and ASHA's who were a part of their communities. They were also talking about community trends in general, not their own households. Although in the data analysis, no significant relationships were found between drinking and violence against women, it is likely that they are related. Lack of inhibitions and poor judgment on the part of

drunken men, often leads to violence in the home (Koenig & Stephenson, 2006).

Violence against women is a problem in the five rural villages studied, and violence against women has affected nearly every woman in this community, (ninety-six percent of women). Only a few statistically significant relationships between independent, intervening and dependent variables were found. This may be due to the high prevalence of VAW in Wardha. Violence is so common and so many women have experienced violence, there were few predictors from the variables under study. The paragraphs below will highlight these findings.

VAW Outside the Home

For women in Wardha, harassment and a fear of violence are commonplace, a part of everyday life. Similar to the situation in the rest of India, when women walk outside of their homes, they are the subject of harassment. It may be “eve-teasing” or inappropriate phone calls, but these behaviors are a constant worry. Many women have been followed, yelled at, called names and made to feel uncomfortable in their own villages. In spite of this fear women still need to engage in activities that expose them to these behaviors. They often must go out alone at night or wait for public transport. Women carry different types of items to protect themselves and develop strategies to try to avoid the men that harass them. Although physical violence by strangers is less frequent, this is a constant concern for women. Worry over violence outside the home creates constant stress and makes a woman’s world very small. This affects quality of life as well as growth potential for women. There is increased awareness and reporting of harassment and violence, especially since 2012, when a brutal rape resulting in death in Delhi was widely publicized, however the behaviors persist.

VAW Inside the Home

Women suffer psychologically from their husbands’ behavioral abuse. Fifty percent of

women said that their husbands didn't want them speaking to other men, husbands limited their contact with others and insisted on knowing where and with whom they were spending time, as well as limited information and access to the family income. Nearly fifty percent of women reported that their husbands call them names to put them down or make them feel bad. This type of behavior is likely multifactorial, but mainly an expression of gender inequity. This behavior occurs within the context of the family, as the majority of women live in joint families. Women have very little status or power in their families, and often are the subject of abuse. They also have few options, and may feel "stranded". Women feel (and are) unsupported by their natal families, who usually expect them to adjust, even when that means harassment and violence. They are unsupported by their husband and in-laws, and also often do not feel that law enforcement is a place they can turn for help (Subramaniam & Krishnan, 2016).

Physical violence at home was also a significant issue. Half of the women's husbands had threatened to hit them, thrown something at them, pushed, shoved or grabbed them, or beaten them. Burning was not asked about. Fewer had experienced forced sexual activity, choking or had been threatened with a knife. Over 40% of women had experienced violence more than one time. Twenty-five percent of women reported that their father had been violent toward their mother, and similarly twenty-five percent of women reported that their father-in-law had been violent toward their mother-in-law. It is well known and documented that exposure to violence in the home during childhood is a risk for perpetuating the cycle and being both the perpetrator and/or the victim of further violence (WHO, 2017).

One of the objectives of this research was to study the influences (individual and community) that affect violence against women during pregnancy, women were asked about husband's behavior and physical violence during pregnancy. Only six percent of women reported

physical and emotional abuse by their husbands during pregnancy. These numbers are low, and it is possible that women were uncomfortable telling the ASHAs and ANM's about violence during pregnancy. However, in the group interviews, lower rates of VAW during pregnancy were corroborated by all groups. Everyone reported that pregnancy is a happy time and families look forward to having children. It is also possible that lower levels of VAW during pregnancy relates to the two-child norm, although more research is needed to establish this relationship. There is still sex bias towards boys in India, it seems that most people take the two child norm seriously. Sex selection technology is not widely used in Wardha. The majority of women in these poor villages don't have access to ultrasound to determine the sex of the baby. This may lead to some protection against VAW during a pregnancy, as husbands will most likely not want to cause harm to the developing baby, since it might be a boy. There was no discussion in the group interviews of feticide or infanticide as a means of sex selection, although this may not be something that women are willing to discuss in public.

The last section of the survey, which asked about gender roles, helped set the cultural stage for women's home life in Wardha. With sixty-two percent of women surveyed indicating that women should have more rights, and not be controlled by their husbands, it is likely that the women in Wardha are ready for change in gender norms. This is one area in which interventions should be considered. Changing gender norms is a big challenge, especially in patriarchal cultures. Interventions must be planned carefully, including the community and including men. (Schensul & Singh, 2015).

Another goal of this research was to understand the influences (individual and community) that affect violence against women during marriage and pregnancy. Five statistically significant relationships were discovered. The fact that there were only five, was surprising

although consistent with Jewkes' Lancet article in 2002. The Lancet article suggested that most socio-demographics, other than poverty, are not associated with violence against women. Although some articles have found relationships, they haven't been replicated consistently (Jewkes, 2002).

The first finding was the relationship between the Husband Behavior and Violence at Home Scale and a history of the woman's father-in-law being violent towards her mother-in-law. It has been documented that when a person witnesses violence in their childhood, especially in their own home, there is a higher likelihood that they will be offenders themselves. Jewkes' Lancet article discusses the role of violence in this cycle, and this relationship has been found in many studies. Men and women who witness their own mother as victim, as well as children who are the victims of violence are likely to resort to violent behavior as adults. Violence is learned as a strategy for control in conflict. Jewkes also talks about the role of violence in a society, using South Africa as an example. Violence is so common, both at the state and the personal level, and such a part of life, that it is not seen as aberrant. As mentioned above, in Wardha, the majority of families continue to live jointly, the father-in-law (and mother-in-law) live with the son and daughter-in-law, and have great influence on their lives. Even when the family structure is nuclear, extended family live near by and so still are likely to have an influence.

The second significant finding is the relationship between the Husband Behavior and Violence at Home Scale and the husband forcing the woman to have sex during pregnancy. In India and worldwide, many people believe that women have an obligation to have sex with their husband. It is possible that men don't think of this as violent and that is why this is the only significant finding for the pregnancy section. This was a yes or no question, so further details are not available. It is possible that when women were pregnant, they refused sex and then sex was forced. This is not a topic that came up in the group interviews.

The third relationship was found between the Husband Behavior and Violence at Home Scale variable and the woman's ability to read Hindi. This relationship was a bit surprising for a few reasons. Koenig and Stephenson (2006) cited higher education level (for both the male/husband and female/wife) as protective against violence against women. Simister and Mehta, (2010) discuss the issues that arise when a woman is more educated or literate than her husband. This is validated by the findings in this study. If husbands feel that they are losing authority over their wives, and the power gradient is shifting, they may become more abusive (Simister & Mehta, 2010). For this particular relationship, we were looking only at the women's ability to read Hindi. Women's ability to read English, and men's literacy were not found to have a significant relationship.

There were two final two significant relationships. One was between age discordance and the husband trying to limit contact with others (family and friends). When a husband limits his wife's contact with others, this is a form of behavioral abuse. Jewkes (2002) has studied imbalance of power and the violence that is common when patterns of power change. This may be the case in this study where younger men were more likely to limit their older wives contact with others. The last significant relationship was between the father-in-law being violent (towards the mother-in-law) and the husband limiting contact with others. The history of violence by the father-in-law was discussed above as it was also found to have a significant relationship with the Husband Behavior and Violence at Home scale. As mentioned above, the violent behaviors are learned, by living with a violent family member.

During the group interviews, it was reported that violence against women, especially hitting or having things thrown at them, was so common that women questioned why they were being asked. In some interviews, burning was also reported. Burning was not included as a

question in the survey.

Most women move in with their husbands' extended family after marriage. The majority do still live in a joint family (58.4%), but many live in nuclear families, (35.8%). In the group interviews, several women who lived in nuclear families explained that their husband's extended family lives in the same village, just in a different house. Almost all of those interviewed agreed that decisions about household issues, including money, childcare, and healthcare are made by the husbands or if living in joint families, the fathers-in-law. Some reported, women made decisions about their children's education and what to buy for the home, but the men made major decisions. A few interviewees reported that in wealthier families, decisions may be made together, husband and wife, but this is not the norm in these villages. Many women believe that husbands and in-laws have a right to punish, often physically, women who are not doing their duties or who make them angry. Most of those interviewed believed that women working outside the home is acceptable and good for the family. As these villages are rural and poor, everyone recognizes the value of a second income. Also, it was mentioned that in many cases when the husband drinks too much and doesn't work, the woman's income does help.

Limitations

This project had limitations. Adapting a survey from others done in Western countries is difficult because of cultural differences and expectations. Some pertinent questions may have been left out, for example, incidents of VAW by mother-in-laws or father-in-laws, and burning as a type of violence were not asked about. For most of the survey, the questions were asking if an action had ever happened. This yields less detailed information than asking about a certain period of time, or exact dates. More precise information may be helpful in understanding, but also planning interventions. For example, it is possible that early in a marriage there is more violence, so

knowing that, a group could target intervention to couples before they marry or those that have been married a shorter period of time. Having community health workers to administer the survey can be considered a limitation. Although they had training, there is likely to be some bias as they live within the community, and they also had to perform their regular work activities at the same time.

Conclusions and Recommendations

To conclude, this research showed that behavioral and physical VAW is very common in Wardha. This is consistent with other literature and work from India done in various geographical areas. The studies around the world on VAW, have consistently found few significant relationships between violence and socio-demographics. This was also true in this research. As VAW is now considered a public health problem by most countries and communities, there are many ways to address it. In planning for future projects, a variety of public health tools can be used to address VAW. Raising awareness about VAW at both the community level and with medical providers is important. There are numerous ways to go about this including billboards or posters and newspaper and television advertisements. Special health fairs or health awareness days can be planned by public health workers and community health workers, with input from physicians to raise awareness. Activities may include plays (pathnatyas), role-plays, talks, and pamphlet distribution. Specifically in Wardha, speakers at meetings of established women's groups to educate and also during special community days or holidays, so that men are also included in the education. At MGIMS, educating obstetrics and gynecology physicians including those in training and other outreach health workers, such as ASHA's and nurse midwives to ask about domestic violence when they see women for immunizations, and other prenatal care. It is especially important for

these clinicians to understand the health effects of VAW on both women and babies. As further research is conducted and interventions and resources are developed, the clinicians also need to know about them.

Further research in Wardha should investigate attitudes of men around the topic of VAW, as well as alcohol use and its implications. As the men are most often the perpetrators, it is important to understand their point of view. This is planned as the next phase of this project. This information would be helpful in creating interventions. Future studies of VAW in Wardha, should ask more specific questions about the violence, including timeframe, and circumstances at the time of the violence. This will provide more detail and help researchers begin to understand the situations more fully.

A particularly onerous aspect of VAW in any culture, but especially in India is developing solutions. Solutions require funding, but also cultural acceptance. Currently in the villages studied in Wardha, it is not acceptable to leave your husband, even if the reason is serious violence. It is very difficult when there are no options for women. We discussed possible solutions in the group interviews and some of the women's suggestions included treating women equally (which is a huge cultural shift and a lofty general goal), cracking down on men's alcohol use, and recruiting the male elders of the villages to become educators and role models. It is essential to approach the problem from a legal perspective and for public health officials and others to lobby for laws against VAW, as well as enforcement of those laws. One aspect that cannot be overlooked is educating law enforcement. The local police need to understand VAW and that it is important to investigate complaints without bias, and arrest offenders when appropriate. There is some action in India to hire more female police officers. This is also a big cultural shift, however could make an important difference (Washington Post, 2012).

At the International Conference on Male Involvement in Improving Women's Sexual and Reproductive Health, in Mumbai in 2016, several possible interventions and programs were proposed and discussed. Programs encouraging men to be more invested in the health of women can help with violence and gender inequality. The following are a few examples of promising ideas to engage men and boys in interventions that challenge unequal power structures. This promotes women's rights and will urge men and boys to protect women from violence. Creating programs that intervene at critical developmental stages (adolescence) will encourage healthier relationships between males and females.

In many low and middle income countries, the World Bank is funding projects to develop ways for technology to help with VAW. Several apps have been developed and provide different types of resources. An app that originated in the United States to fight college campus sexual violence was modified after the rape and murder of a medical student in Delhi in 2012. The app provides support and allows a woman to alert her supporters of her location. It uses crowd sourcing to share knowledge about dangerous locations, and provides links to resources to users. Other apps connect victims with police via the app, which encourages law enforcement support of victims. Victims of violence can be connected with NGO's and human rights organizations directly through apps providing support. The support provided via technology may be more accessible to women in need, than support in person that requires travel and time spent away from the home. (Statt, 2017).

As far as VAW during pregnancy, it is important to look for better ways to access pregnant women and ask about violence in pregnancy. During pregnancy, two lives are at risk. Several studies across the world have examined the effect of VAW on the health of the fetus, and most have found serious health problems and outcomes (Muthal-Rathore, 2002). This is a unique time to ask women about violence, as they are more likely than in non-pregnant times to seek care.

There is so much innovation occurring around the world to develop both technological and low or no tech methodologies to fight gender inequity and violence against women. Culture in the developing world is changing rapidly about what is tolerated so there is reason to be hopeful about reducing VAW and its consequences.

References

- Aloosh, M. & Aloosh A. (2015) Population Control Policies in Iran. *The Lancet*. 385, 1071.
- al-Ramadhan, M. (1992). New Population Policy in Kuwait: The Quest for a Balance in the Population Composition. United Nations. Retrieved from:
<http://www.un.org/popin/regional/escwa/popbull/bull43/chapter3.htm>.
- Asling-Monemi, K., Pena, R., Ellsberg, M., C. & Persson, L., A. (2003). Violence against women increases the risk of infant and child mortality: a case-referent study in Nicaragua. *Bulletin of the World Health Organization*. 81 (1), 10-18.
- Classbase, Education System in India. Retrieved from:
<https://www.classbase.com/Countries/india/Education-System>.
- Dhillon, M. & Bakaya, S. (2014). Street Harassment: A Qualitative Study of the Experiences of Young Women in Delhi. *SAGE Open* 4(3). 1-11 doi: 10.1177/2158244014543786
- European Institute for Gender Equality. (2017). Gender-based Violence. Retrieved from
<http://eige.europa.eu/gender-based-violence/what-is-gender-based-violence>.
- Gazmararian, J. & Lazorick S. (1996). Prevalence of violence against pregnant women. *J Am Med Assoc*. (275)1915-1920.
- Government of India, Office of the Registrar General & Census Commissioner, Census Data, Religion. (2011). Retrieved from: http://censusindia.gov.in/Census_And_You/religion.aspx.
- The India Times. (2017). The Economic Times, Definition of Human Development Index. Retrieved from: <http://economictimes.indiatimes.com/definition/human-development-index>.
- Indian Population Census 2011. (2015). Sex Ratio in India. Retrieved from:
<http://www.census2011.co.in/sexratio.php>.
- International Growth Center. (2015). Ideas for India: Impact on the two child limit for local politicians. Retrieved from: http://ideasforindia.in/article.aspx?article_id=419
- Jewkes, R. (2002). Intimate Partner Violence: causes and prevention. *Lancet*. 359, 1423-29.
- Joseph, K. (2016). Globalisation, Development and Plantation Labour in India. London, United Kingdom: Routledge Publishers.
- Kaye, D. K., Mirembe, F.M., Bantebya G., Johansson, A., Ekstrom A. M. (2006). Domestic violence during pregnancy and risk of low birthweight and maternal complications: a prospective cohort study at Mulago Hospital, Uganda. *Tropical Medicine and International Health*. 11(10) 1576-1584.

Kishor S. & Gupta K. (2009). Gender Equality and Women's Empowerment in India. National Family Health Survey (NFHS-3), India, 2005-06. Mumbai: International Institute for Population Sciences; Calverton, Maryland, USA: ICF Macro.

Koenig, M & Stephenson, R. (2006). Individual and Contextual Determinants of Violence against women in North India. *American Journal of Public Health*. 96(1), 132-138.

Maden, K. & Breuning, M. (2014). Impact of prenatal technologies on the sex ratio in India, an overview. *Genetic Medicine*. 16 (6), 425-432.

Martin, S & Tsul, A. (1999). Domestic Violence in Northern India. *American Journal of Epidemiology*, 150 (4), 417-426.

Merriam Webster Dictionary Website. (2017). Retrieved January 26, 2017 from: <https://www.merriam-webster.com/dictionary/domestic%20violence>.

MGIMS. (2017) Our Founder. Mahatma Gandhi Institute of Medical Sciences. Retrieved from <https://www.mgims.ac.in/index.php/about-us/our-founder>.

Modi, M & Palmer, S. (2014) The Role of Violence Against Women Act in Addressing Intimate Partner Violence: A Public Health Issue. *Journal of Women's Health*, 23(3) 253-259.

Moraes, C & Reichenheim, M. (2002). Domestic violence during pregnancy in Rio de Janeiro, Brazil. *International Journal of Gynecology and Obstetrics*, 79, 269-277.

Muthal-Rathore, A., Tripathi, R., Arora, R. (2002). Domestic violence against pregnant women interviewed at a hospital in New Delhi. *International Journal of Gynecology and Obstetrics*, 76, 83-85.

Nyaaya. (2017). The Protection of women from domestic violence act, 2005. Retrieved from: <http://nyaaya.in/law/557/the-protection-of-women-from-domestic-violence-act-2005/#section-1>.

Peedicayil, A & Sadowski, L.(2004). Spousal physical violence against women during pregnancy. *BJOG: An International Journal of Obstetrics and Gynaecology*. 111. 682-687.

Quartz India. (2014). Actually, the nuclear family is on the decline in India. Retrieved from: <https://qz.com/228405/india-is-urbanizing-rapidly-but-the-nuclear-family-is-actually-shrinking/>.

Sarkar, N. (2008). The Impact of intimate partner violence on women's reproductive health and pregnancy outcome. *Journal of Obstetrics and Gynaecology*. 28 (3). 266-271.

Sacco, L. (2015). The Violence Against Women Act: Overview, Legislation, and Federal Funding. Congressional Research Service. Retrieved from: <https://fas.org/sgp/crs/misc/R42499.pdf>.

Schensul, S. & Singh, R. (2015) Community Gender Norms Change as a Part of a Multilevel Approach to Sexual Health Among Married Women in Mumbai, India. *American Journal of Community Psychology*. 56. 57-68.

Silwal, P. (2012) Violence during Pregnancy among Young Married Women in Nepal. Retrieved from UConn Digital Commons.

Sharma, Rajendra K. (2004). Indian Society, Institutions and Change, New Delhi, India: Atlantic Publishers.

Simister, J. & Mehta, P. (2010). Gender-Based Violence in India: Long-Term Trends. *Journal of Interpersonal Violence*. 25(9) 1595-1611.

Statt. (2017). Tackling Gender-Based Violence with Technology. Retrieved from: <http://hirondeusea.org/wp-content/uploads/2014/09/STATT-Tackling-GBV-with-Technology.pdf>.

Subramaniam, M. & Krishan, P. (2015). *Violence and Crime in the Family: Patterns, Causes, and Consequences*. Bingley, UK. Emerald Group Publishing.

Times of India (2017). Liquor Ban in Wardha no deterrent for illegal trading. Retrieved from <https://timesofindia.indiatimes.com/city/nagpur/liquor-ban-in-wardha-no-deterrent-for-illegal-trading/articleshow/57946498.cms>.

United Nations International Children's Emergency Fund. (UNICEF). (2017). Domestic Violence Against Women and Girls. UNICEF. Retrieved January 26, 2017 from <https://www.unicef-irc.org/publications/pdf/digest6e.pdf>.

United Nations. (2007). Indicators to Measure Violence Against Women. Report from the Expert Group Meeting, Geneva Switzerland.

United Nations Development Program. (UNDP). (2016). Human Development Reports, Gender Inequality Index and Human Development Index. Retrieved from: <http://hdr.undp.org/en/content/gender-inequality-index-gii>.

United Nations. (2017). Statement by Ambassador Muhammad Shahrul Ikram Yaakob, Permanent Representative of Malaysia to the United Nations. Retrieved from: http://www.un.org/en/development/desa/population/pdf/commission/2017/country/AgendaItem3/malaysia_en.pdf.

Washington Post (2012). Ten Reasons India has a Sexual Violence Problem. Retrieved from: https://www.washingtonpost.com/news/worldviews/wp/2012/12/29/india-rape-victim-dies-sexual-violence-proble/?utm_term=.e9577e54fd48.

World Health Organization (WHO). (2013). Global and regional estimates of violence against women; Prevalence and health effects of intimate partner violence and non-partner sexual violence. Retrieved from http://apps.who.int/iris/bitstream/10665/85239/1/9789241564625_eng.pdf?ua=1.

World Health Organization (WHO). (2016). Violence against Women, Intimate Partner and Sexual Violence Against Women. Retrieved from: <http://www.who.int/mediacentre/factsheets/fs239/en/>.

World Health Organization (WHO). (2017). No to Violence Against Women. Retrieved from: <http://www.create4theun.eu/how-did-violence-against-women-become-a-human-rights-concern/>.

World Health Organization (WHO). (2017). Health Situation and Trend Assessment, Sex Ratio. Retrieved from: http://www.searo.who.int/entity/health_situation_trends/data/chi/sex-ratio/en/.

World Policy Review. (2017). Kuwait Population 2017. Retrieved from: <http://worldpopulationreview.com/countries/kuwait-population/>.